



Epidemiology Resource Center 2 North Meridian Street, 3-D Indianapolis, IN 46204 317/233-7416

June 2000 Vol. VIII, No. 6

Communicable Disease Reporting Rule Under Revision

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The Communicable Disease Reporting Rule for Physicians, Hospitals, Laboratories has been revised and is currently in the final stages of approval. The revision is anticipated to become effective this fall. This is the first revision since 1988 and is an extensive revision. The revision incorporates changes in reporting requirements reflecting the emergence of new diseases or changes in disease agents over the past 12 years. The revised rule not only establishes reporting requirements, but also provides directions for investigation, isolation, disinfection, quarantine, protection for contacts, and in some cases, treatment protocols.

The reporting rule is the keystone for the communicable disease surveillance system (surveillance systems include data collection, transfer, analysis, interpretation, dissemination, and use). The disease surveillance system provides local health departments and the Indiana State Department of Health (ISDH) with the information required to achieve four objectives: 1) identify the magnitude of a disease problem and the population at risk, 2) understand the natural history of a disease, 3) detect outbreaks or epidemics so controls can be implemented, and 4) document the distribution and spread of a disease.

The revised rule has four major sections. They are definitions, reporting requirements, a list of reportable diseases, and general control methods. The definitions sections has been greatly expanded to ensure that terms used in the control methods were fully understood in the context in which they are used in the rule.

Also greatly expanded is the control section. Each disease that requires reporting has a control section identifying the public health response to the report. Control sections were developed to include responsibilities for investigation and isolation procedures for hospitalized persons, as well as directions to prevent disease spread from non-hospitalized patients, disinfection requirements for infectious materials/discharges, quarantine requirements if any, steps that can be taken to prevent disease in contacts, and currently recommended treatments for diseases spread by droplets such as diphtheria and invasive meningococcal disease.

The decision to include or exclude a disease as reportable was based on one of several criteria: 1) is the disease nationally reportable to the Centers for Disease Control and Prevention's National Notifiable Disease Surveillance System, 2) is the disease a vaccine preventable disease, 3) is the disease considered an emerging or reemerging disease, 4) is the disease considered a possible Bioterrorism agent, and 5) is the disease one that requires a public health response.

All diseases currently listed in the section "DANGEROUS BUT NOT COMMUNICABLE DISEASES AND CONDITIONS OF PUBLIC HEALTH SIGNIFICANCE" were deleted and replaced with "Pediatric venous blood lead $\geq 10~ug/dl$ in children less than or equal to 6 years of age."

The reporting rule has two lists of reportable diseases, one list for physicians and hospital administrators, and one for laboratories. The reporting requirements were simplified for physicians and administrators by having just two reporting times, immediate or 72 hours. Diseases requiring immediate reporting are those that have grave consequences and require immediate public health intervention to protect contacts. Immediate reporting is also required for diseases caused by Category A Bioterrorism agents. Laboratory reporting for all diseases remains weekly at a minimum.

An important piece of epidemiological data used in outbreak investigations has become the typing or genetic fingerprinting of certain organisms to establish the source of the disease or strain circulating in a community. With these extra data, the ISDH can link cases and has proven that certain foods and or facilities were the source of a foodborne outbreak. To ensure that these tools are fully utilized laboratories are to submit isolates of the following seven organisms to ISDH: Haemophilus influenzae (invasive disease), Neisseria meningitidis (invasive disease), $E. coli \ 0157:H7$ or sorbital-negative E. coli, Staphylococcus aureus (vancomycin resistance $\geq 8ug/ml$), Mycobacterium tuberculosis, Listeria monocytogenes, and <math>Salmonella species (from any site).

The ISDH staff has been very fortunate to have a number of local health department personnel, infection control professionals, and others assist with the revision. Their assistance and incorporated suggestions have been valuable contributions. We will continue to partner with them as we place the rule into practice to *promote*, *protect* and *provide* for the public health of people in Indiana.

Diseases removed from the reportable disease list are:

Giardiasis
Herpes, Neonatal
Meningitis, Bacterial
Pelvic inflammatory disease
Occupational diseases
Rheumatic fever
Tuberculin reactors
Spinal cord injuries

Hepatitis, Viral, Non-A, Non-B Human bites Ophthalmia, Neonatorum Kawasaki Disease Reye's Syndrome Typhus, louse-borne Atypical Mycobacteria

Diseases added to the reportable disease list are:

Cyclospora
Hemolytic Uremic Syndrome,
 post diarrheal
Hepatitis C
HIV infection/disease, pregnant woman
 or perinatally exposed infant
Staphylococcus aureus, vancomycin resistance
Invasive Streptococcus Group A
Varicella, resulting in hospitalization/death
Pediatric blood lead levels ≥ 10ug/dl in
 children ≤ 6 years of age

Hantavirus Pulmonary Syndrome
Hepatitis B, pregnant woman (acute and chronic) or perinatally exposed infant
Hepatitis, Delta
Post-exposure prophylaxis for rabies
Invasive Streptococcus pneumoniae, and antimicrobial resistance pattern
Invasive Streptococcus Group B
Influenza (Laboratories only)

The complete list of reportable disease for physicians and hospital administrators is:

AIDS
Animal bites
Anthrax
Babesiosis
Botulism
Brucellosis
Campylobacter

Campylobacteriosis

Chancroid

Chlamydia trachomatis, genital infections

Cholera

Cryptosporidiosis

Cyclospora Diphtheria Ehrlichiosis

Encephalitis, arboviral, (California, EEE,WEE,

West Nile, St. Louis) *Escherichia coli* infection

(including *E. coli* 0157:H7 and other entero-hemorrhagic types

Gonorrhea

Granuloma inguinale *Haemophilus influenza*, invasive disease

Hansen's disease (leprosy)

Hantavirus pulmonary syndrome Hemolytic uremic syndrome,

postdiarrheal

Hepatitis, viral, Type A Hepatitis, viral, Type B

Hepatitis, viral, Type B, pregnant woman (acute and chronic), or perinatally exposed infant Hepatitis, viral, Type C (acute) Hepatitis, viral, Type Delta Hepatitis, viral, unspecified

Histoplasmosis

HIV infections/disease

HIV infections/disease, pregnant woman or perinatally exposed

infant Legionellosis Poliomyelitis Psittacosis Q Fever Leptospirosis

Listeriosis Lyme disease

Lymphogranuloma venereum

Malaria

Measles (rubeola)
Meningitis, aseptic

Meningococcal disease, invasive

Mumps Pertussis Plague

Rabies in humans or animals (confirmed and suspect animals with human exposure)

Rabies, post-exposure treatment Rocky Mountain spotted fever

Rubella (German measles) Salmonellosis, other than typhoid fever

Shigellosis

Staphylococcus aureus, vancomycin resistance level

of MIC > 8ug/mL

Streptococcus pneumoniae, invasive disease and

antimicrobial resistance pattern

Streptococcus, Group A, invasive disease

Streptococcus, Group B, invasive disease

Syphilis Tetanus

Toxic shock syndrome (streptococcal or staphylococcal)

Trichinosis

Tuberculosis, cases and suspects

Tularemia

Typhoid fever, cases and carriers

Typhus, endemic (flea borne)

Varicella, resulting in hospitalization or death Typhus, endemic (flea borne)

Varicella, resulting in hospitalization or death

Yellow fever Yersiniosis

Pediatric venous blood lead

 $\geq 10ug/dl$

Reportable Laboratory findings for the following diseases or conditions are:

Arboviruses (St. Louis, Calif, EEE, WEE, West Nile, Japanese, Yellow fever)

Japanese, Yellow fever
Babesia species
Bacillus anthracis
Bordetella pertussis
Borrelia burgdorferi
Brucella species

Calymmatobacterium granulomatis

Campylobacter species
Chlamydia psittaci
Chlamydia trachomatis
Clostridium botulinum
Clostridium perfringens
Clostridium tetani

Corynebacterium diphtheriae

Coxiella burnetii

Cryptococcus neoformans Cryptosporidium parvum Cyclospora cayetanensis Ehrlichia chaffeeensis

Ehrlichia phagocytophila Enteroviruses (coxsackie, echo, polio) Escherichia coli infection (including E. coli 0157:H7 and other enterohemorrhagic types)Francisella tularensis

Haemophilus ducreyi Histoplasmosis capsulatum

Hantavirus

Hepatitis viruses: anti-HAV IgM;

HBsAg or HBeAg or anti-HBc IgM; RIBA or RNA or anti-HCV, or any combination; Delta

Haemophilus influenzae, invasive disease

HIV and related retroviruses

Influenza

Kaposi's sarcoma (biopsies)

Legionella species
Leptospira species
Listeria monocytogenes

Measles virus Mumps virus

Mycobacterium tuberculosis Neisseria gonorrhoeae Neisseria meningitidis

Pediatric blood lead \geq 10 ug/dl in children \leq 6 years of age

Plasmodium species

Pneumocystis carinii Rabies virus

(animal or human) *Rickettsia* species

Rubella virus

Salmonella species

Shigella species and antimicrobial

resistance pattern

Staphylococcus aureus,

Vancomycin resistance

 \geq 8 ug/ml

Streptococcus Group A,

invasive disease

Streptococcus Group B,

invasive disease

Streptococcus pneumoniae, invasive disease and

antimicrobial resistance pattern

Treponema pallidum Trichinella spiralis

Vibrio species

Yersinia species, including pestis,

enterocolitica, and pseudotuberculosis

New Editor for Indiana Epidemiology Newsletter

It is with great pleasure that we welcome **Pam Pontones** as the new Editor for the Indiana Epidemiology Newsletter.

Alan Oglesby, the former Editor, has left the ISDH to take a position at Eli Lilly here in Indianapolis. We are saddened by his leaving, but very happy that he has been given this opportunity. We wish him well in his new endeavor.

Cardiovascular Disease in Indiana

Cardiovascular disease is the number one cause of death for residents of the state of Indiana. For 1998, over 40% of all of the deaths in Indiana were the result of cardiovascular disease with an age-adjusted rate of 172.1 deaths per 100,000 population. Over the last ten years, Indiana's death rate from cardiovascular disease has been, on average, 7% greater than the national rate. Figure 1 compares the death rates for cardiovascular and related diseases over the last five years.

Two of the major subcategories of cardiovascular disease are heart disease and cerebrovascular disease (stroke). These two disease groupings account for approximately 94% of the major cardiovascular disease deaths in the state for 1998. The age-adjusted death rate for heart disease and cerebrovascular disease in Indiana during 1998 was 133.7 deaths per 100,000 and 28.0 deaths per 100,000, respectively.

Heart disease, cancer, and cerebrovascular disease are the three leading causes of death in Indiana, in that order. Deaths from heart disease have been slowly declining as improved interventions for this disease have been developed. The number of deaths from cerebrovascular disease has been constant for 1992-1998 accounting for nearly 18% of all the major cardiovascular heart disease deaths in Indiana.

Many of the behavioral risk factors for cardiovascular disease are similar to risk factors for cancer including being overweight, smoking, chronic drinking, not eating enough fruits and vegetables, and being physically inactive. (See Figures 2-5) Additional risk factors for cardiovascular disease include hypertension, hypercholesterolemia, and diabetes.

Figure 1.

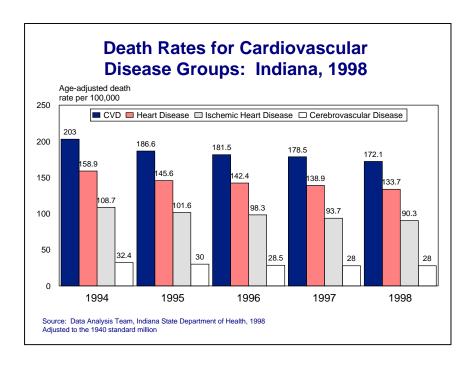


Figure 2.

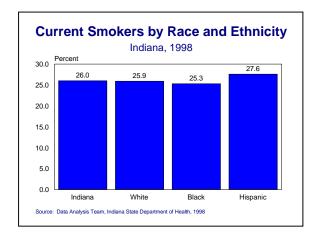


Figure 3.

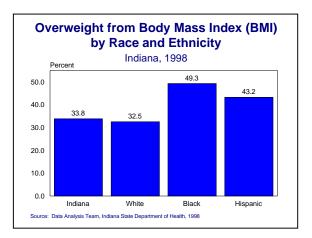


Figure 4.

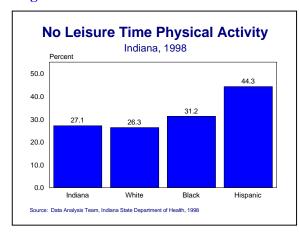
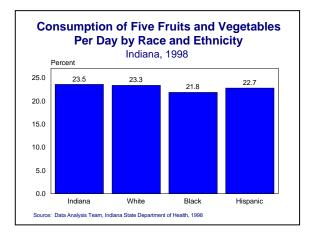


Figure 5.



There is also an increased risk of cardiovascular disease if you are a male over 45 years of age, a female over 55 years of age or have passed menopause or had your ovaries removed and are not taking estrogen. If your family history includes a father or brother having a heart attack under the age of 55, or your mother or sister having a heart attack under the age of 65, you are at increased risk of cardiovascular disease. In addition, if there is a close blood relative who has had a stroke, your risk of cardiovascular disease is higher than the general population.

Indiana has a greater percent of its population with these behavioral risk factors compared to other states (Table 1). The Behavioral Risk Factor Surveillance System is a phone survey conducted in conjunction with the State Department of Health and the Centers for Disease Control and Prevention that measures all of these major risk factors for cardiovascular disease and can be analyzed by demographic characteristics such as age, sex, race, income, and marital status. Through this analysis, priority populations can be more closely monitored for improvements and possible public health interventions.

Table 1. Indiana's Ranking of Behavioral Risk Factors for Cardiovascular Disease, 1998

Factor	Percentage	Ranking*
Smoker	26.0 %	9
Overweight, BMI	34.5 %	13
Less than 5 fruits or Vegetables	76.5 %	23
No leisure time activity	27.1 %	27
Diabetes	6.0 %	12
Hypertension	25.2 %	10
Cholesterol	29.0 %	23
Chronic drinker	3.0 %	24

^{*} Rank of all states and territories participating in the survey. The lower the rank, the higher the cardiovascular risk.

Proper control of blood lipid levels is another important part of a healthy heart lifestyle. The total cholesterol level in the blood should be less than 240 mg/dL and the high-density lipoprotein (HDL) or 'good' cholesterol should be greater than 35 mg/dL. (If other risk factors are present, a medical provider may recommend a cholesterol level lower than 200 mg/dL.) The medical literature has reported that cholesterol levels can be lowered by diet, exercise and by the use of medication if deemed appropriate by a physician. In addition, increasing physical activity can increase HDL levels.

Hypertension is also a controllable risk factor to reduce the potential risk from heart disease. If your blood pressure is greater than 140/90 mm Hg, then you are at an increased risk of heart disease. Hypertension can be controlled by a number of factors including reducing the intake of sodium from salt, increasing the amount of physical activity and taking medication if deemed appropriate by a physician.

Special population groups need to pay particular attention to cardiovascular disease risk factors. The mortality rate for cardiovascular disease among the black population is approximately 50% higher than the state average (Figure 6). The black mortality rate for both stroke (Figure 7) and heart diseases are higher, although the incidence of smoking among blacks is lower than the state average. Although the smoking rate is lower for blacks, the rate of hypertension, diabetes, and being overweight are higher.

Figure 6.

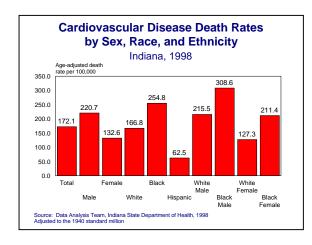
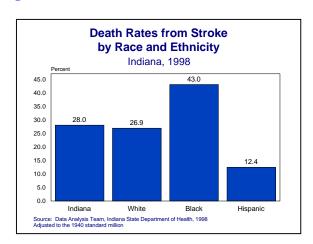
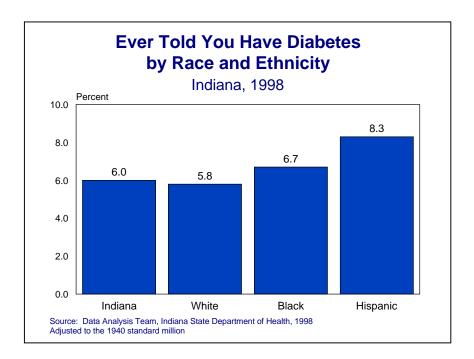


Figure 7.



The cardiovascular mortality rate for the Hispanic population is significantly below the state average and the national average. In part, the lower rate can be explained by the age distribution of the population in the state. Over 57% of the Hispanic population in Indiana is less than thirty years of age and over 80% of the population is below the age of forty-five. However, the percent of the Hispanic population that smokes has no leisure time physical activity, and the incidence of diabetes (Figure 8) is much larger than the state average. If changes to these risk behaviors do not occur, it is very likely that the cardiovascular disease mortality for this population will increase dramatically.

Figure 8.



There are also differences in cardiovascular disease mortality based on gender. Males are more likely to have a heart attack at a younger age and survive than females. Approximately half of women who have heart attacks die from heart disease each year. This rate is higher than that of men in controlled age groups. Heart disease mortality ultimately extends to one third of all women.

In summary, there are a number of ways to reduce your risk from the number one cause of death in Indiana. Know and understand the risk factors for cardiovascular disease. A healthy cardiovascular lifestyle includes not smoking, maintaining a normal body weight, exercise of at least 20 continuous minutes five days per week, proper diet with at least five servings of fruit and vegetables per day, maintaining a normal blood pressure, and reducing the total cholesterol blood level below 240 mg/dL. Although all of these steps can not prevent cardiovascular disease, it can greatly lower your risk of developing this disease.

Minority Health in Indiana

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Preventing illness or death has always been at the center of medicine and health care. However, throughout time health professionals and laymen have noted that some individuals suffered disproportionately in regard to what was considered healthy. Those with the highest rates for morbidity and mortality were usually the poor, the elderly, and racial or ethnic minorities.

Not much has changed with regard to the types of individuals who have shown, and continue to exhibit, the highest rates for preventable diseases. They still are the poor, elderly, and racial and ethnic minorities. These populations, with little or no access to quality health care and disease prevention, become even more vulnerable to morbidity and mortality; consequently, their morbidity and mortality rates steadily climb.

Health disparity is the condition in which certain persons in a population have higher rates for morbidity and mortality than the rest of that population, thus creating a health disparities "gap". Indiana's health disparities are great, and so are the efforts to narrow the gaps of preventable diseases and deaths. In Indiana, as in the United States, blacks consistently have higher rates for health disparities than any other segment of the population. Blacks comprise approximately 8.3% of the population in Indiana and 13% of the national population.

In 1985, Secretary Margaret Heckler of the U.S. Department of Health and Human Services released a report on Black and Minority Health. Her concern was that there were specific minority groups in the United States who were experiencing excessive deaths from preventable health conditions. In response to this report, the Minority Health Initiative was created in 1986. This was the first step in a long journey to affect the disproportionate amount of black morbidity and morality.

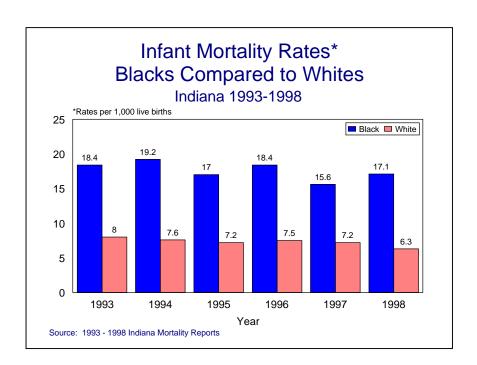
Since that report, Indiana has begun embarking on its own crusade to combat health disparities among its black and minority citizens. The first of these was the creation of the Interagency State Council on Black and Minority Health, which was established through legislation by the Indiana General Assembly in 1988. This council assesses and reviews the health status of minorities in Indiana. Then in 1991, the Indiana State Health Commissioner created and staffed the Office for Special Populations as part of the Indiana State Department of Health (ISDH). In 1995, the office was renamed the Office of Minority Health (OMH).

The current director of OMH, Gloria Webster-French, states that the primary focus of the office is to eradicate disparities in preventable conditions of minorities in the state of Indiana. The OMH goal is to completely eliminate health disparities for minorities by the year 2010, following the Healthy People 2010 objectives. Ms. Webster-French says that her office hopes to achieve these goals through minority health initiatives and by supporting programs and strategies that will provide better and more efficient health delivery systems for minorities. The OMH carries out its mission and goals through activities designed to promote the following: 1) community partnerships to build strong coalitions aimed at improving minority health; 2) legislation and public policy; 3) improvement of minority data collection, analysis, and reporting methods; 4) public awareness of minority health issues; 5) improved access to affordable and culturally-appropriate health services; 6) recruiting and retention of minority health professionals; 7) providing technical assistance and monitoring local health action plans; and 8) assisting the Indiana Family Helpline with specific information for health care service referrals.

The OMH also works very closely with the Indiana Minority Health Coalition (IMHC) in an effort to reach more Hoosier minorities. The OMH promotes communication between the ISDH and IMHC in order to develop initiatives to address the health status of Indiana's racial minorities. The IMHC is a non-profit organization comprised of concerned citizens, health professionals, and health advocates determined to impact and improve the health status of at-risk Hoosier racial minorities. The mission of IMHC is similar to OMH, which is that no ethnic/minority child, adolescent, or adult will experience preventable health conditions at any greater rate than non-whites. A statewide network of 16 local county minority coalitions has been established to promote healthy lifestyles through disease prevention, health awareness, monitoring, advocacy, referrals, information resources, community outreach, and program services. These counties were selected because of their significant minority populations.

In their efforts to reduce health disparities, the OMH and the IMHC have utilized primary and secondary prevention as two of their many methods for closing Indiana's health disparities gap. The OMH and the IMHC have collaborated with health care institutions to provide screenings for cancer, heart disease, and cerebrovascular disease, the three leading causes of death for blacks in Indiana. To reduce vaccine-preventable diseases with rates disproportionately higher in black and minority populations, the ISDH/OMH actively participates in an Immunization Outreach Project for children 0-2 years of age. The OMH also collaborates with the Indiana Air National Guard in the Indiana Care Force Program, an annual influenza and pneumococcal immunization, and health screening projects for elderly adults in high-risk counties. The ISDH also funds the Nurturing Assistance to Assure Life Expectancy (NATALE) program, which IMHC coordinates. The program's targeted population is high-risk minority pregnant women in Vanderburgh County and Lake County. According to Ms. Webster-French, the goal is to improve prenatal outcomes and decrease the disparity of black to white infant mortality (see Figure 1.).

Figure 1.



The leading causes of death for Indiana's black population are, in descending order: 1) heart disease, 2) cancer, 3) stroke, 4) diabetes, 5) HIV, or homicide (depending on the year). In addition, for the black population, the rates for these diseases are higher than rates for the Indiana white population. All 16 of the IMHC local coalitions are active in implementing programs that target the three leading causes of death for blacks (see Figures 2-7), as well as putting into practice programs that target co-factors of cardiovascular disease such as diabetes, high blood pressure, high cholesterol, and obesity. In addition to these projects designed to decrease minority disparities, each coalition is also involved in several programs developed specifically for their county, based on the racial minority needs assessment for the region.

Figure 2.

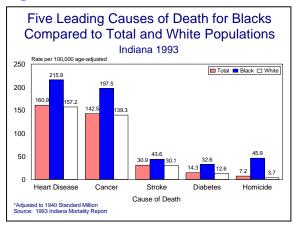


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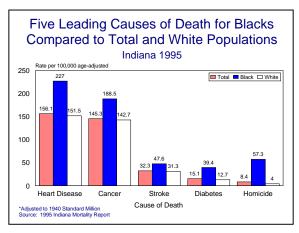


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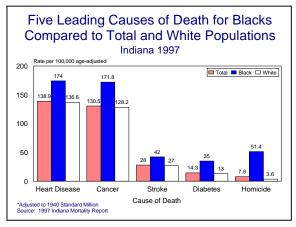


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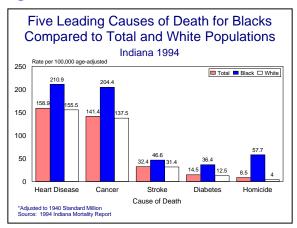


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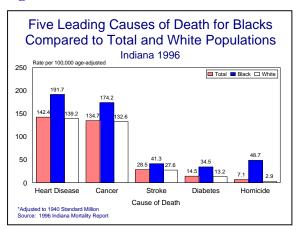
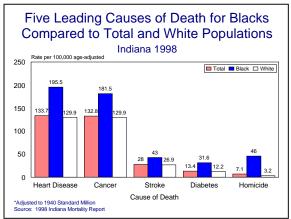
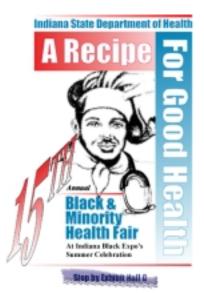


Figure 7.



Through the OMH and IMHC, the ISDH is also involved in several other projects throughout Indiana that are specifically designed to decrease healthrelated disparities among minorities. **Delaware County** has a program aimed at decreasing teenage pregnancy through Youth Abstinence Workshops. The goal of this program is to educate, inform, and promote more safe sex methods, and to demonstrate that "Just Saying No Isn't Enough". An Elkhart County program, "Just For the Health of It", aims at increasing changes in lifestyle and behaviors of its participants by discussing lifestyle for the prevention of heart disease. In Grant County, the "Hypertension, The **Silent Killer**" program has a goal to increase the awareness of people who have high blood pressure. This project offers free blood pressure screenings several times a year. Howard County's "Step by Step" project mission is to increase overall awareness of heart disease, cancer, and stroke. The **ISDH** also sponsors the annual Black and Minority Health Fair, which offers health screenings and illness prevention, health, and wellness education to all citizens.



Ms. Webster-French says the future direction for the OMH is to continue in the collaborative efforts with IMHC, as well as to address other health conditions/issues that disproportionately affect minorities. In addition, the office is working to minimize barriers, mainly cultural and ethnic, that minority populations experience in accessing quality health services. She also believes that the progressive partnership between the OMH and the IMHC together with other agencies that are committed to the elimination of health-related minority disparities will continue to be meaningful.

References/Sources

- 1. Indiana Behavioral Risk Factors Report, 1998
- 2. Cancer Incidence in Indiana, 1995.
- 3. CDC Wonder System.
- 4. Gorsuch, Sandy; Indiana State Department of Health, Office of Minority Health, 2000.
- 5. Indiana Data, Indiana State Dept of Health, Epidemiology Resource Center, Surveillance Investigation Unit and Data Analysis Team, 1992-1998.

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ISDH Data Reports Available

The ISDH Epidemiology Resource Center has the following data reports and the Indiana Epidemiology Newsletter available on the ISDH Web Page:

http://www.state.in.us/isdh/ (under Data and Statistics)

Indiana Cancer Incidence Report (1990, 95)

Indiana Mortality Report (1995, 97)

Indiana Cancer Mortality Report (1990-1994) Indiana Natality Report (1995, 96, 97)

Indiana Health Behavior Risk Factors (1995-96, 97, 98)

Indiana Natality/Induced Termination of Programmy (Magning as Penant (1998))

Pregnancy/Marriage Report (1998)

Indiana Report of Diseases of Public Health

Indiana Hospital Consumer Guide (1996)

Interest (1997, 98)

Indiana Marriage Report (1995, 96, 97)

The following site allows access to the web page for any state health department in the United States:

http://www.polsci.wvu.edu/grad/klase/STATEHEALTH/sthlth.html

HIV Disease Summary

Information	as of May 31	2000 (nonulation	5.840.528)

HIV - without AIDS to date:

233 New cases from June 1999 thru May 2000 12-month incidence: 3.99 cases/100,000

3,167 Total HIV-positive, without AIDS on May 31, 2000¹ Point prevalence: 54.23 cases/100,000¹

AIDS cases to date:

New AIDS cases from June 1999 thru May 2000 12-month incidence: 5.41 cases/100,000

2,552 Total AIDS cases on May $31,2000^1$ Point prevalence: $43.70 \text{ cases}/100,000^1$

5,857 Total AIDS cases, cumulative (alive and dead)

¹Counting only cases alive in May 2000

REPORTED CASES of selected notifiable diseases

Disease	Cases Reported in May		Cumulative Cases Reported through May	
	1999	2000	1999	2000
Campylobacteriosis	46	48	140	112
E. coli O157:H7	2	6	14	16
Giardiasis	58	47	153	176
Hepatitis A	13	18	57	32
Hepatitis B	13	5	21	20
Legionellosis	6	1	13	10
Lyme Disease	4	9	5	9
Meningococcal, invasive	4	7	22	27
Pertussis	2	10	10	22
Rocky Mountain Spotted Fever	2	3	2	3
Salmonellosis	56	65	148	189
Shigellosis	10	222	34	444
Tuberculosis	13	5	52	53
Animal Rabies	0	0	0	0

For information on reporting of communicable diseases in Indiana, call the *ISDH Communicable Disease Division* at (317) 233-7665.

Indiana Epidemiology Newsletter

The *Indiana Epidemiology Newsletter* is published by the Indiana State Department of Health to provide epidemiologic information to Indiana health professionals and to the public health community.

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